

## In this section:

Adding, calculating, bookkeeping, and accounting machines .....	58
Mailroom equipment .....	62
Communications equipment .....	68
Dictating and transcribing equipment.....	75
Copying and duplicating equipment.....	78
Filing equipment and office safes.....	87
Integrated data processing equipment.....	95
Typewriters .....	108
Books for executive reading.....	112
Microfilm .....	114
Business forms .....	119

## ADDING, CALCULATING, BOOKKEEPING, AND ACCOUNTING MACHINES

MODERN OFFICE work procedures have necessitated greater mechanization; and this fact has influenced the new development in adding and calculating machines. The sixties saw a good many improvements in these standard office machines, some of which are described below.

Addo-x Inc. has recently introduced its Printing Calculator Model 3541E which has a separate "finger-shaped" keyboard for multiplication. The machine reportedly

automatically performs the multiplication by the number on the key depressed. All figuring is eliminated and the operator simply sets up the multiplicand and multiplier on the keyboard. When the total key is depressed, the result appears immediately — multiplicand, multiplier, and product appear on the tape. The new model also has automatic subtract-multiplication and a decimal point indicator which may be set in nine different positions.

Friden's new Model SBT has separate control keys for accumulative and negative multiplication. Friden's STW line, the SBT both eight- and ten-column boards, offers separate control for accumulative and negative multiplication. Constant factors are locked. Positioning of carriage decimal points is automatic. There is split dial clearance with accumulator locks.

Victor Adding Machine Company

## TOOLS OF THE OFFICE

cently announced the new Digit-Matic Data Punch, a digital device that allows remote control adding machine operation through the use of solenoids with both a printed details tape and a punched data processing tape resulting. It can be activated from distant points and by a wide variety of associated equipment. A testament to the versatility of the Digit-Matic Data Punch is the feasibility of having it programmed by equipment now programming other digital handling or data processing devices.

It is possible to activate the unit through digital converters, communications systems, control instruments, digital counters, digital testing equipment, flowmeters, production scales, pulse height analyzers, temperature recorders, time interval meters, typewriters, and similar industrial, business, and laboratory instruments.

Simultaneously, from each such operation comes a printed record for immediate information plus punched tape for further automatic handling. The punched tape contains coded information in 5, 6, 7, or 8 channels.

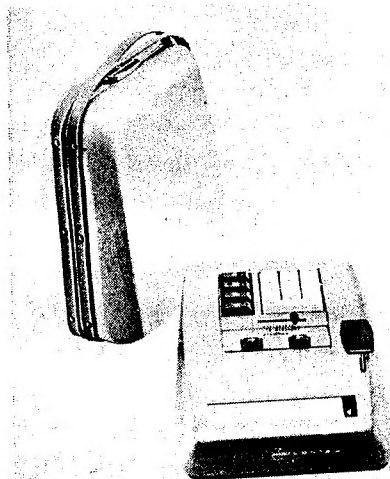
Victor Adding Machine Co.'s latest entry into the field of adding machines is the new Premier. Available in both 10-key and full keyboard models, an interesting innovation in the Premier is the use of three separate motor bars to eliminate non-essential hand movements. Located in a vertical row, the length and position of each bar has been determined according to the functions employed. The longest bar is for adding and totaling. A short bar provides subtraction while the third motor bar can be used for both addition and subtotaling. This new "vertical bar" arrangement is said to facilitate use of the finger touch system on even full keyboard models.

Ten-key Premiers also have a larger, "L-shaped" cypher bar for easier thumb control, and an electrified "live" correction button which erases easily.

Available in both hand and electric operation, the Premier can be obtained with 8-, 9-, 10-, or 11-



"Addo-x" model 3541E has separate "finger-shaped" keyboard for multiplication.



Bohn Duplicator Co.'s new "Context" calculator has several division improvements.

number listing capacity, and up to an eleven totaling capacity.

Monroe Calculating Machine Co., Inc., recently announced a source data originator designed for data processing in accountancy. The new product, available in both single-register and duplex models, is the Synchro-Monroe Accountants' Program Punch Tape Adding Machine. The P-03 succeeds two earlier punch tape adding machine models, combining the features of both and offering several new features.

Compatible with data processors of all service bureaus, the portable Accountants' Program machine universalizes source data origination in processing for accountants. The machine features automatic repetition

of all code information, eliminating the need of re-indexing repetitive reference numbers. Another new feature is Accountants' Program keyboard symbols, providing clear-cut identification of opening controls.

In Accountants' Program data processing, accounting information is recorded on punched tape. Tapes are processed at data processing service bureaus, and printed accounting records and reports are returned to the accountant for his clients.

Bohn Duplicator Co. has announced a new model of the Bohn Context Calculator with several improvements in Division. Division is now more automatic than it had been heretofore. The Bohn Context is a 10-key machine that adds, subtracts, multiplies, and divides. It weighs six pounds, costs \$125.

While the Context is manually-operated it has no "handle." Its actuating bar, depressed with the palm of the hand, operates like the motor bar on electric machines. This patented actuating principle enables the Context to attain high speeds.

Monroe Calculating Machine Co.'s new LA-9 calculating machine has a "quick-shift" control lever which permits easier and faster shifting of the carriage; it allows all operations to be performed with one hand. Carryover upper dials allow "short-cut" multiplication. It is available in two capacities: The LA-203, with ten-column keyboard, ten counting dials, and twenty-place result dials; and the LA9-163 with 8-8-16 capacity.

Alma Office Machine's Newest addition to the world of adding machines is a ten-key hand adding machine with automatic credit balance.

The printing calculator is also equipped with an accumulating register which automatically adds and subtracts all totals and gives the grand total upon depression of the grand total key. This accumulating register saves the separate calculation which would otherwise be necessary to obtain the grand total.

Twenty-one separate totals are available in The National Cash Register Company's new Class 33 accounting machine. Automatic credit balances are obtained from

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all 21 totals; the machine may be programmed to create as many as four totals in one operation, and the depression of a single key automatically totals or subtotals all 21 totals in sequence, making possible a complete daily statement of posting.

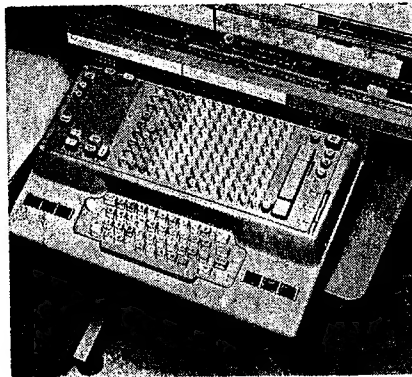
The Class 33 machine also protects the amounts on checks by automatically printing the dollar sign immediately to the left of the highest dollar amount. The machine will automatically determine if the operation has made an incorrect pickup. A single-key reverse entry control provides instant correction of erroneous postings and reversal of accounting entries without need for changing program or determining which totals must be affected.

The Class 33 has removable program bars which may be altered to meet changing requirements of particular accounting jobs. Removable program bars provide flexibility in the design of forms, and are said to permit a variety of bookkeeping applications to be placed on a single machine.

A built-in electric typewriter with 72 characters facilitates accurate description of all entries and simplifies auditing. The Class 33 is also available without a typewriter.

Comptometer Corp. recently announced the Comptometer Duplex Calculator, which has a memory unit. Designed to eliminate the need for reworking figures to arrive at a grand total, the new Duplex has two sets of dials, one of which stores figures both positively and negatively for use when needed. A two-key control simplifies operator decisions.

Comptometer also has the versatile Automatic Printing Multiplier Comptograph. It automatically multiplies, printing the right answer as well as both multiplicands in three horizontal lines. The new 12AM Comptograph will multiply three or more factors in a direct, straight-line flow without re-entry of intermediate results. It is said to add, multiply, or subtract, regardless of previous operation, without setting or pre-setting any controls.



National Cash Register's "Compu-Tronic II," is an electronic accounting machine with seven electronic memory units.

### Adding and calculating machines

The following two lists cover the principal manufacturers of figuring equipment. The first list, devoted to makers of adding and calculating machines, is clarified by the use of the following code symbols:

E—Electric machines.

FK—Full-keyboard machines.

FKP—Full-keyboard printing machines.

IDP—Models which read and/or create a "common language," such as punched paper tape, or which otherwise are suitable for use in integrated data processing systems.

M—Manual machines

MI—Miscellaneous.

TK—Ten-key keyboard machines.

TKP—Ten-key keyboard printing machines.

Addo-X, Inc., 300 Park Ave., New York. (TK-E;M;TKP-E;MI-automatic multiplier)

R. C. Allen Business Machines, Inc., 678 Front Ave., N.W., Grand Rapids 4, Mich. (FK-E;M;TK-E;M;TKP-E;M)

Alma Office Machine Corp., 349 Broadway, New York 13. (TKP-E;M)

American Voss Corp., 18097 Sorrento Ave., Detroit 35. (TKP-E;M)

Bohn Duplicator Corp., 444 Park Ave., South, New York 16. (TK-M)

Burroughs Corp., 6071 Second Ave., Detroit 32. (FK-E;M;TKP-E;M)

Calculator Equipment Corp., 556 Central Ave., Orange, N. J. (MI-three models of Scotsman calculator)

Clary Corp., 408 Juniper St., San Gabriel, Calif. (FK-E;M;IDP;TKP-E)

Classic Calculators, Inc., Div. Rex Rotary Dist. Co., 387 Park Ave. South, New York 1 (TKP-E)

Comptometer Corp., 5600 W. Jan Ave., Chicago 48. (FK-E;M;TKP-E)

Control Systems, Inc., 5 Beekman St., New York 38. (TK-E;M)

Facit, Inc., 404 Park Ave. South, New York 16. (TK-E;M;TKP-E;M)

Fremaco International, Inc., 188 Randolph St., Chicago 1. (TKP-E;M)

Friden, Inc., 2350 Washington Ave., San Leandro, Calif. (FK-E;M;IDP;TKP-E)

The General Gilbert Corp., 1 Broadway, New York 38. (TKP-E)

Johnston Adding Machine Co., 13343 Sherman Way, N. Hollywood, Calif. (TK-E;M)

Lanston Monotype, Div. of Lanston Industries, Inc., 24th & Locust Sts., Philadelphia 1. (TK-E;M)

Olivetti Corp. of America, 375 Park Ave., New York 22. (TKP-E;M)

Olkon Research Corp. of America, P.O. Box 3049, Asheville, N.C. (TKP-E;M)

Regna Cash Registers, Inc., Fifth Ave., New York 10. (FK-E;M;TKP-E;M)

Remington Rand, Div. of Spangenberg Corp., 315 Park Ave. South, New York 10. (TKP-E;M)

Silver Bells Ltd., P.O. Box 100, Carmel, Calif. (FK-M)

Smith-Corona Marchant, Inc., 700 Washington St., Syracuse 1, N.Y. (FK-E;M;TK-E)

Swift Business Machines Co., Church St., Great Barrington, Mass. (TK-M)

Underwood Corp., 1 Park Ave., New York 16. (TKP-E;M)

Victor Adding Machine Co., N. Rockwell St., Chicago 18. (FK-E;M;TKP-E;M)

### Bookkeeping and Accounting Machines

This list covers a wide range of equipment, including standard bookkeeping and accounting machines and systems, charts, and scales useful in accounting bookkeeping, and, in a few cases, accessory equipment. It does not include integrated data processing equipment (which is covered elsewhere) except for standard pur-